

I claim:

1. A method of delivering advertising content to a vehicle occupant using a vehicle radio, comprising the steps of:

5 receiving a radio advertisement;

storing the radio advertisement in memory;

receiving a radio broadcast stream;

monitoring the received radio broadcast stream for marker data indicative of an advertising slot within the radio broadcast stream; and

10 playing the radio broadcast stream using the vehicle radio and, in response to detecting the marker data, accessing the radio advertisement from memory and playing the radio advertisement in the advertising slot using the vehicle radio.

15 2. The method of claim 1, wherein said radio broadcast stream includes an in-line advertisement identified by the marker data and wherein the method further comprises the step of substituting the stored radio advertisement for the in-line advertisement.

3. The method of claim 1, further comprising the steps of:

20 receiving a plurality of different radio advertisements;

selecting certain ones of the received radio advertisements;

storing the selected radio advertisements in the memory; and

25 wherein said playing step further comprises accessing one of the stored radio advertisements in response to detecting the marker data and playing the accessed radio advertisement in the advertising slot using the vehicle radio.

30 4. The method of claim 3, wherein each of the different radio advertisements is accompanied by advertisement data associated with the received radio advertisement, and wherein said selecting step further comprises selecting certain ones of the different radio advertisements using the advertisement data associated with the different radio advertisements.

5. The method of claim 4, wherein the advertisement data includes selection data and wherein said selecting step further comprises selecting certain ones of the different radio advertisements using the selection data.

5 6. The method of claim 5, wherein said selecting step further comprises selecting certain ones of the different radio advertisements based on a comparison of the selection data with stored vehicle data.

10 7. The method of claim 5, wherein said selecting step further comprises selecting certain ones of the different radio advertisements based on a comparison of the selection data with stored user data.

15 8. The method of claim 5, wherein the selection data includes primary selection data and secondary selection data and wherein said selecting step further comprises selecting certain ones of the different radio advertisements using the primary selection data, and wherein said playing step further comprises selecting one of the stored radio advertisements using the secondary selection data, accessing that stored radio advertisement in response to detecting the marker data, and then playing the accessed radio advertisement using the vehicle radio.

20 9. The method of claim 8, further comprising the step of storing each of the secondary selection data with its associated radio advertisement in the memory.

25 10. The method of claim 8, wherein the primary selection data includes at least one of advertisement type data, listener demographic data, vehicle type data, and geographical region data.

30 11. The method of claim 8, wherein the secondary selection data includes at least one of timing data and advertisement length data.

12. The method of claim 11, wherein the timing data includes at least one of priority data, time of day data, frequency data, urgency data, and expiration data.

13. The method of claim 4, wherein the advertisement data for each radio advertisement includes identification data that uniquely identifies that radio advertisement from among the other radio advertisements, and wherein said storing step further comprises storing the identification data with its associated radio advertisement in the memory.

14. The method of claim 13, further comprising the step of transmitting the stored identification data from the vehicle following playing of its associated radio advertisement, whereby playing of the radio advertisement can be confirmed using the transmitted identification data.

15. The method of claim 3, wherein the advertisement data for one or more of the stored radio advertisements includes a play count stored in memory and wherein the method further comprises the step of periodically replaying one of the stored radio advertisements until that radio advertisement has been played a number of times that is equal to its associated play count.

16. The method of claim 1, further comprising the step of receiving a plurality of different radio advertisements, each of which is accompanied by advertisement data associated with the received radio advertisement, and storing at least some of the received radio advertisements along with at least a portion of their associated advertisement data.

17. The method of claim 16, wherein the advertisement data includes selection data and wherein said step of storing received radio advertisements further comprises selecting certain ones of the different radio advertisements using the selection data and then storing the selected radio advertisements in the memory.

18. The method of claim 17, wherein the selection data includes primary selection data and secondary selection data and wherein said selecting step further comprises selecting certain ones of the different radio advertisements using the primary selection data, and wherein said playing step further comprises selecting one of the stored radio advertisements using the secondary selection data, accessing that

stored radio advertisement in response to detecting the marker data, and then playing the accessed radio advertisement using the vehicle radio.

19. The method of claim 18, further comprising the step of storing each of the
5 secondary selection data with its associated radio advertisement in the memory.

20. The method of claim 16, wherein the advertisement data for each radio
advertisement includes identification data uniquely identifying that radio
advertisement from among the other radio advertisements, and wherein, following
10 playing of a selected radio advertisement, said method further comprises the step of
transmitting the identification data from the vehicle, whereby playing of the radio
advertisement can be confirmed using the transmitted identification data.

21. The method of claim 16, wherein the associated advertisement data
15 includes metadata indicative of the content of the radio advertisement.

22. The method of claim 16, wherein the associated advertisement data
includes metadata indicative of a demographic group.

23. The method of claim 16, wherein the associated advertisement data
20 includes data indicative of the length of the radio advertisement.

24. The method of claim 1, further comprising the step of accessing the radio
advertisement from memory based on user data;
25

25. The method of claim 24, further comprising the step of obtaining the user
data from a remotely located computer.

26. A radio system for a vehicle to provide broadcasted radio programming
30 and advertising content to an occupant of a vehicle, comprising:
a vehicle radio having an input for receiving audio data and at least one output
for providing audio signals representative of the received audio data;

a radio broadcast receiver having an antenna for receiving two or more radio broadcast streams, with a first one of the radio broadcast streams including radio advertisements and a second one of the radio broadcast streams including audio content that contains intermittent advertising slots each identified by a marker
 5 contained with that broadcast stream, the radio broadcast receiver being coupled to the input of the vehicle radio to provide the vehicle radio with the received audio content; and

an advertising control unit connected to said radio broadcast receiver to receive at least some of the radio advertisements contained in the first radio broadcast
 10 stream, said advertising control unit including a recording device which stores radio advertisements received from said radio broadcast receiver;

wherein, upon receipt of one of the markers contained within the second broadcast stream, said advertising control unit is operable to access one of the stored radio advertisements, with the accessed radio advertisement being inserted into the
 15 advertising slot identified by the received marker so that the accessed radio advertising is included within the audio content sent to the input of the vehicle radio.

27. A radio system as defined in claim 26, wherein the vehicle radio and radio broadcast receiver are integrated together as a single unit.

28. A radio system as defined in claim 26, wherein the vehicle radio, radio broadcast receiver, and advertising control unit are integrated together as a single unit.

29. A radio system as defined in claim 26, wherein said recording device
 25 comprises a digital storage device.

30. A radio system as defined in claim 26, wherein said digital storage device comprises random access memory.

31. A radio system as defined in claim 26, wherein the radio broadcast receiver is connected to the input of the vehicle radio and wherein the advertising control unit is operable to supply the accessed radio advertisement to the radio broadcast receiver for insertion into the audio content by the radio broadcast receiver.

32. A radio system as defined in claim 31, wherein said radio broadcast receiver is operable to provide the markers to said advertising control unit, and said advertising control unit is operable in response to receiving one of the markers to
5 access one of the radio advertisements and supply the accessed radio advertisement to the radio broadcast receiver.

33. A radio system as defined in claim 26, wherein the radio broadcast receiver is coupled to the input of the vehicle radio by the advertising control unit
10 such that the first and second radio broadcast streams are sent by the radio broadcast receiver to the advertising control unit, and wherein the advertising control unit is operable to store on the recording device at least some of the radio advertisements contained in the first radio broadcast stream, and is further operable to monitor the
15 second radio broadcast stream for the markers and to insert the accessed radio advertisement into one of the advertising slots following receipt of the marker that identifies that advertising slot.

34. A radio system as defined in claim 26, wherein said advertising control unit is operable to select one or more of the received radio advertisements using
20 advertisement data that accompanies each of the radio advertisements received by the radio broadcast receiver.

35. A radio system as defined in claim 34, wherein said advertising control unit is operable to store the selected radio advertisements on said recording device.
25

36. A radio system as defined in claim 34, wherein the advertisement data contains selection data used by the advertising control unit to select among the received radio advertisements.

30 37. A radio system as defined in claim 36, wherein the selection data includes primary selection data and secondary selection data and wherein said advertising control unit is operable to select and store certain ones of the different radio advertisements using the primary selection data, and is further operable to select one

of the stored radio advertisements using the secondary selection data and to then access that stored radio advertisement for insertion into the audio content sent to the input of the vehicle radio.

5 38. A radio system as defined in claim 37, wherein the advertising control unit is operable to store each of the secondary selection data with its associated radio advertisement in the recording device.

10 39. A radio system as defined in claim 34, wherein said advertising control unit contains stored vehicle data and is operable to select one or more of the received radio advertisements using the advertisement data and the stored vehicle data.

15 40. A radio system as defined in claim 34, wherein said advertising control unit contains stored user data and is operable to select one or more of the received radio advertisements using the advertisement data and the stored user data.

20 41. A radio system as defined in claim 34, further comprising a vehicle communications device connected to said advertising control unit to provide said advertising control unit with the user data.

25 42. A radio system as defined in claim 34, further comprising a vehicle communications device operable to transmit identification data received from the first radio broadcast stream that uniquely identifies the accessed radio advertisement from among the other radio advertisements, whereby playing of the accessed radio advertisement can be confirmed using the transmitted identification data.

43. A radio broadcast system for providing broadcasted radio programming and advertising content to an occupant of a vehicle, comprising:

30 one or more radio broadcast transmitting facilities that provide a first radio broadcast stream which includes radio advertisements and a second radio broadcast stream which includes audio content that contains intermittent advertising slots each identified by a marker contained with that broadcast stream;

a radio broadcast receiver located on a vehicle and being operable to receive the first and second radio broadcast streams;

a recording device located on the vehicle and being operable to store at least some of the radio advertisements received by the radio broadcast receiver, said

5 recording device further being operable to supply one or more of the stored radio advertisements for insertion into the second radio broadcast stream;

a vehicle radio coupled to the radio broadcast receiver to receive the second radio broadcast;

10 a vehicle communications device that transmits data confirming playback of the radio advertisement inserted into the second radio broadcast; and

a vehicle communications central facility that receives the data transmitted from the vehicle communications device.

44. A radio broadcast system as defined in claim 43, further comprises a
15 network-accessible server for receipt of the radio advertisements, said server being operable to supply received radio advertisements to the one or more radio broadcast transmitting facilities.

45. A radio broadcast system as defined in claim 43, further comprising an
20 advertising control unit located on the vehicle, said advertising control unit being connected to said radio broadcast receiver to receive at least some of the radio advertisements contained in the first radio broadcast stream, and to store at least selected ones of the radio advertisements on said recording device.